Non-Communicable Diseases and Nutrition

Subjects: Nutrition & Dietetics

Contributor: Nicola Bartolomeo

For the prevention of obesity and other non-communicable diseases (NCD), it is necessary to implement food education programs in the pediatric age. To prevent obesity and other NCD, in the age of development (0–18 years), education interventions to a healthy diet must be designed, implemented and monitored by a multidisciplinary team which should take into account medical, psychological and pedagogical scientific evidence.

prevention eating habits nutrition education public health nutrition-conscious knowledge

1. Overview

A case-control study was conducted to investigate the effectiveness of the Edueat® Method, through experiential workshops focused on the use of all 5 senses. In two different primary schools in the same city, questionnaires were administered in two months with a follow-up one year later. Participants: 119 children (age 8.2–9.0) chosen randomly; control group 66 (55.5%). Seven lessons of 2 h each were held in the schools by experts of the Edueat® method and seven extra lessons by the teachers. The main outcome measures were the children's changes in their approach and attitude towards their eating habits. The answers were grouped with factor analysis and summarized through scores. Repeated-measures analysis of variance was conducted in order to identify the relationships between scores and treatment over time. At the end of treatment, the intervention group showed a significant appreciation towards healthy foods (+4.15 vs. −0.05, p = 0.02) and a greater capacity in identifying foods which are very good for the health (+15.6 vs. +14.4, p = 0.02). In conclusion, the Edueat® method was found to be particularly promising in transmitting knowledge of those foods which are healthy. Greater involvement of teachers and parents is crucial.

2. Non-communicable Diseases

For the prevention of non-communicable diseases (NCD), it is necessary to implement food education programs in the pediatric age.

To prevent obesity and other NCD, in the age of development (0–18 years), education interventions to a healthy diet must be designed, implemented and monitored by a multidisciplinary team which should take into account medical, psychological and pedagogical scientific evidence [1][2]. These interventions, thus, have better chances of being effective if they extend their range of action beyond the didactic intervention on the pediatric age target, involving their most important reference figures (i.e., teachers, family, sports centres, cultural centres) [3][4]. Family

environment and socioeconomic status influence both the present and future food choices of the child, as well as the effectiveness of nutritional education interventions [5][6][7][8].

The didactic phase must thus be based mainly on experiential methods and not only on theoretical lessons [3].

In literature, the best results for food education interventions report mainly the increase in fruit consumption and, to a lesser degree, that of vegetables. Whereas, in the reduction of BMI in obese subjects, very few data are found and these deal mainly with long-term intensive programs [6][9][10][11][12][13][14] especially if they also provide an educational intervention aimed at increasing both the quantity and quality of physical activity.

Studies relating to food education converge in affirming that the development of a preference for foods is associated with the frequency of exposure to them and, consequently, with the increased consumption of these [15]. Furthermore, the style adopted by the parents in accompanying the children in the discovery and formation of preferences and eating habits is crucial. There is evidence that the presence of a positive emotional climate during meals is associated with a greater preference for food, as well as the use of the senses to capture the attention of children on the foods to be consumed, for example, by composing a figure with the fruit [16][17][18]. Therefore, early exposure to fruit and vegetables is important for their consumption to be frequent. Approaching food through the senses and in a serene relational climate is a powerful tool for learning these good eating habits.

It is important to establish the age at which it would be most effective to intervene. The first years of life are decisive for learning taste and eating habits. In this study was experimented an intervention with a pedagogically in-depth method with a sociocognitive approach, as per national guidelines and international studies [2][19][20]. Therefore, the Edueat® method was used, which comes with a text designed for 8–9-year-olds. Furthermore, the project was of an educational type, designed for schools, so we opted for older children in the middle of elementary school. In this way, there was the guarantee that the participants had already created a meaningful relationship with the teachers, who are an indispensable reference and guide for the assimilation of the contents of the project. The Edueat® method aims to provide families with a practical tool to help them in this challenging task. The method includes fun games to motivate children to use their senses in the exploration of food and involving parents in this journey of discovery.

The aim of this case-control study was to test the effectiveness of an innovative pedagogical approach, the Edueat® method, to improve children's food choices. The Edueat® method uses workshops based on the involvement of all five senses to make children acquire a better and more aware knowledge of food.

3. Conclusions

A food education intervention lasting almost six months, in randomly chosen classes of primary school children, through the creation of educational workshops using five senses, in order to stimulate a more informed knowledge of food, has proven effective for raising awareness of what are wholesome, healthy foods. This positive effect at T2

(after six months of intervention) was based on the duration of the intervention and the number of workshops carried out in each class but then diminished at the follow-up, one year after the end of the intervention.

Treatment was found to be uninfluential in changing children's eating attitudes and in their knowledge in recognizing unhealthy food. In addition, two distinct core features emerged towards food attitudes: one of restrictiveness and selectivity, and the other of out-of-control food consumption. Both of these aspects represent early forms of food attitudes that in a more marked form can give rise to real eating behavioral disorders. These results are in line with most of the data in literature and they emphasize, also for this type of educational intervention based on sensory workshop methods, the importance of the duration of the intervention, the number of workshops and that the family should be strongly involved in school nutrition education projects. Even earlier educational intervention could provide better results on eating habits.

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